## In Vitro Studies of Antistress and Antiallergic Effects of Semecarpus anacardium Fruit in Asthma

Raosaheb Y. GHEGADE <sup>1</sup>, Sunil A. NIRMAL <sup>1\*</sup>, Manohar J. PATIL <sup>2</sup>, Pratap B. PAWAR <sup>1</sup>, Nachiket S. DIGHE <sup>3</sup>, Shashikant R. PATTAN <sup>3</sup> and Subhash C. MANDAL <sup>4</sup>

<sup>1</sup> Department of Pharmacognosy, Pravara Rural College of Pharmacy, Loni, M.S. India.

<sup>2</sup> Department of Pharmacognosy, M. M. College of Pharmacy, Pimpri, Pune, M.S. India.

<sup>3</sup> Department of Pharmaceutical Chemistry, Pravara Rural College of Pharmacy, Loni, M.S. India.

<sup>4</sup> Pharmacognosy and Phytotherapy Research Laboratory, Department of Pharmaceutical Technology, Jadavpur University, Kolkata.

SUMMARY. Semicarpus anacardium Linn. (Anacardiaceae) is a deciduous moderate sized tree. The plant is commonly known as Ballataka (Sanskrit), Bhela (Hindi) and marking nut in English. Fruits are acrid and sweet and used traditionally in the treatment of asthma. Allergy and stress are important contributing factors in asthma; hence, our objective was to study the effect of plant extracts on milk-induced leucocytosis (antistress) and milk-induced eosinophilia (antiallergic) as no work is done in this direction and to check a possible antiasthmatic role of the plant. Extracts were given at the dose of 50 and 100 mg/kg, p.o., to mice. Ethyl acetate and ethanol extracts showed significant decrease in leukocytes and eosinophils count. These results confirm the use of *S. anacardium* fruits as antistress and antiallergic agents in the treatment asthma.

KEY WORDS: Antiallergic, Antistress, Asthma, Eosinophilia, Leucocytosis, Semecarpus anacardium.

\* Author to whom correspondence should be addressed. *Email:* nirmalsunil@rediffmail.com